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No Oasis in the Desert: Identification and Implications of the Food Desert around an Urban Ohio Hospital

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No Oasis in this Desert: Identification and Implications of the Food Desert around an Urban Ohio Hospital

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Introduction

Montgomery County, Ohio’s diabetes prevalence outpaces the nation, and the incidence of adult obesity approaches 1/3. Access to healthy food in the impoverished neighborhood surrounding Dayton’s Good Samaritan Hospital, the site of the Family Medicine residency, is important when educating about health literacy.

Purpose: To determine whether the area was a food desert and to evaluate the implications of the label.

Prevalence of Type 2 Diabetes mellitus

![Prevalence of Type 2 Diabetes mellitus](Image)

Body Mass Index rates by category

![Body Mass Index rates by category](Image)

Methods

- Database search
  - Review of current literature (2009-2014) using Web of Science database and search term "food desert"
- Other sources considered
  - Additional references considered in this narrative review include sources outside the date range, but which were referenced in reviewed papers.
- Food Atlas Search
  - The Economic Research Service (ERS) of the U.S. Department of Agriculture (USDA) maintains a Food Access Research Atlas, searchable by address.
- Community sources accessed
  - Multiple stakeholders are researching the Dayton food system, and they provide unique insights into the current environment.

Literature cited


Conclusions

The implications of food deserts on diseases commonly seen in family physicians, including diabetes and obesity, are complex and may be part of the multifactorial causes of these diseases.

- Physicians should consider food access, affordability, and quality when working with patients to develop plans for improving food choices.
- Improved health literacy is essential to changing eating habits, and focusing solely on improving food access will not solve the problem.
- Food access in a defined food desert may still be adequate, despite the potential limitations of distance and vehicle access.

Do food deserts matter?

Aiding poverty options in a food desert may not improve fruit and vegetable consumption nor BMI. On average, Supplemental Nutrition Assistance Program (SNAP) participants lose 1.8 miles from the nearest supermarket but traveled 4.9 miles to the foodstore that most often used. Federal policy makers consider the current food desert research to be inconclusive, and they question the importance of food desert mapping.

Local efforts

Young professional group UpDayton work to improve food access by developing the Food Finder (Figure 6). Their map and listing account for typical grocery stores, markets, convenience stores, specialty stores, and farmer’s market options.

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Results

How a census tract qualifies as a food desert

![How a census tract qualifies as a food desert](Image)

Supermarket Presence

- Existence of stores with more than $2 million in annual sales of food including produce, meat, dairy, or packaged foods, and frozen foods. In that area surrounding Good Samaritan Hospital, examples of stores meeting this definition include Kroger and Save A Lot.

![Supermarket Presence](Image)

![Figure 1.](Image)

![Figure 2.](Image)

![Figure 3.](Image)

It’s not just access: quality and affordability matter

- Supermarkets: Quality and affordable food, but spread far apart
- Local Markets: Limited selection of healthy options at high prices
- Convenience Stores: Quick access to calorie-dense, nutrient-poor foods
- Restaurants: Plentiful, but few healthy or affordable options

![It’s not just access: quality and affordability matter](Image)

![Figure 4.](Image)

![Figure 5.](Image)

![Figure 6.](Image)